

Amendments to the Specification:

Please amend the abstract of the application as follows:

The synthesis of arrays of DNA probes sequences, polypeptides, and the like is carried out using a patterning process on an active surface of a substrate. As an initial step in the synthesis, ~~A~~n image is projected onto the active surface of the substrate utilizing an image former that includes a light source that provides light to a micromirror device comprising an array of electronically addressable micromirrors, each of which can be selectively tilted between one of at least two positions. ~~Projection optics receives the light reflected from the micromirrors along an optical axis and precisely images the micromirrors onto the active surface of the substrate, which may be used to activate the surface of the substrate. The first level of bases may then be applied to the substrate, followed by development steps, and subsequent exposure of the substrate utilizing a different pattern of micromirrors, with further repeats until the elements of a two-dimensional array on the substrate surface have an appropriate base bound thereto. The~~ micromirror array can be controlled in conjunction with a DNA synthesizer supplying appropriate reagents to a flow cell containing the active substrate to control the sequencing of images presented by the micromirror array in coordination of the reagents provided to the substrate.